

Re-write the claims as set forth below. This listing of claims will replace all prior versions and listings, of claims in the application:

Listing of Claims:

Sub B'
Claim 1 (currently canceled)

Claim 2 (currently amended): The method of claim 1 24 including the step of storing the at least portion of the adaptively de-interlaced frame image for display.

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Claim 3 (original): The method of claim 2 including the step of retrieving, by a graphics processor display engine, the stored adaptively de-interlaced frame image for display on at least one display device.

Claim 4 (currently amended): The method of claim 1 24 wherein the step of performing adaptive de-interlacing by the 2-D/3-D engine includes executing 2D/3D instructions that result in performing median filtering.

Claim 5 (currently amended): The method of claim 1 24 wherein the step of performing adaptive de-interlacing by the 2-D/3-D engine includes executing 2D/3D instructions that result in performing spatio-temporal filtering.

Claim 6 (currently amended): The method of claim 1 24 including the step of controlling the 2D/3-D engine to perform the adaptive de-interlacing prior to display by a display engine.

Claim 7 (currently amended): The method of claim + 24 including the step of issuing 2D/3D instructions to the 2D/3D engine to carry out de-interlacing of lines of video data from interlaced fields.

Claim 8 (currently amended): The method of claim + 24 wherein the at least one instruction includes at least of a: line inverting instruction, a scaling instruction and a blend instruction.

Claim 9 (currently amended): The method of claim + 24 including the step of determining whether the at least one instruction is for the 2D/3D engine or for a display engine.

Claim 10 (currently canceled)

Claim 11 (currently amended): The method of claim + 25 including the step of storing the at least portion of the adaptively de-interlaced frame image for display.

Claim 12 (currently amended): The method of claim + 25 wherein the step of performing adaptive de-interlacing by the 2-D/3-D engine includes determining non-motion between a plurality of pixels based on spatial-temporal filtering.

Claim 13 (currently amended): The method of claim + 25 including the step of controlling the 2D/3D engine to perform the adaptive de-interlacing prior to display by a display engine.

Claim 14 (original): The method of claim 13 including the step of issuing 2D/3D instructions to the 2D/3D engine to carry out de-interlacing of lines of video data from interlaced fields

Claim 15 (currently amended): The method of claim ~~14~~ 25 wherein the at least one instruction includes at least of a: line inverting instruction, a scaling instruction and a blend instruction.

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Claim 16 (currently canceled)

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cont'd*
Claim 17 (currently amended): The storage medium of claim ~~16~~ 26 including instructions that causes the one or more 2D/3D engines to store the at least portion of the adaptively de-interlaced frame image for display.

Claim 18 (currently amended): The storage medium of claim ~~16~~ 26 including instructions that causes one or more graphics processor display engines to retrieve the stored adaptively de-interlaced frame image for display on at least one display device.

Claim 19 (currently amended): The storage medium of claim ~~16~~ 26 including instructions that causes the one or more 2D/3D engines to executing 2D/3D instructions that result in performing median filtering.

Claim 20 (currently amended): The storage medium of claim ~~16~~ 26 including instructions that causes one or more processing devices to control the 2D/3D engine to perform the adaptive de-interlacing prior to display by a display engine.

Claim 21 (currently amended): The storage medium of claim ~~16~~ 26 including instructions that causes one or more processing devices to issue 2D/3D instructions to the 2D/3D engine to carry out de-interlacing of lines of video data from interlaced fields on a pixel by pixel basis.

Claim 22 (currently amended): The storage medium of claim ~~16~~ 26 wherein the at least one instruction includes at least of a: line inverting instruction, a scaling instruction and a blend instruction.

Claim 23 (currently amended): The storage medium of claim ~~16~~ 26 including instructions that causes one or more graphics processors to determine whether the at least one instruction is for the 2D/3D engine or for a display engine.

Claim 24 (new): A method for de-interlacing interlaced video using a graphic processor comprising the steps of:

receiving at least one instruction for a 2-D/3-D engine to facilitate creation of an adaptively de-interlaced frame image from at least a first interlaced field; and

performing, by the 2-D/3-D engine, at least a portion of adaptive de-interlacing based on at least the only a first interlaced field in response to the at least one instruction to produce at least a portion of the adaptively de-interlaced frame image;

wherein the first interlaced field is alternating lines of the interlaced video.

Claim 25 (new): A method for de-interlacing interlaced video using a graphic processor comprising the steps of:

determining whether at least one received instruction is for a 2D/3D engine or for a display engine;

receiving the at least one instruction for the 2-D/3-D engine to facilitate creation of an adaptively de-interlaced frame image from at least a first interlaced field;

performing, by the 2-D/3-D engine, at least a portion of adaptive de-interlacing based on at least the first interlaced field in response to the at least one instruction to produce at least a portion of the adaptively de-interlaced frame image; and

retrieving, by a graphics processor display engine, the stored adaptively de-interlaced frame image, generated by the 2D/3D engine, for display on at least one display device;

wherein the first interlaced field is alternating lines of the interlaced video.

Claim 26 (new): A storage medium containing executable instructions that when executed by one or more 2d/3d engines, causes the one or more 2D/3D engines to:

receive at least one instruction to facilitate creation of an adaptively de-interlaced frame image from at least a first interlaced field; and

perform at least a portion of adaptive de-interlacing based on at least the first interlaced field in response to the at least one instruction to produce at least a portion of the adaptively de-interlaced frame image;

wherein the first interlaced field is alternating lines of the interlaced video.